

REMARKS

Favorable consideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claims 9-15 are pending in the present application.

In the outstanding Office Action, Claims 9-15 were rejected under 35 U.S.C. §102(b) as anticipated by Pombo et al. (U.S. Patent No. 5,799,256, hereinafter “Pombo”).

In response to the rejection of Claims 9-15 under 35 U.S.C. §102(b), Applicants respectfully request reconsideration of this rejection and traverse the rejection, as discussed next.

Briefly recapitulating, Claim 9 is directed to a mobile terminal including a transmitter/receiver configured to transmit/receive a signal to/from a base station; a reception state measurement unit configured to measure a reception state of the signal from the base station received by the transmitter/receiver; and a movement state measurement unit configured to measure a movement state of the mobile terminal. The mobile terminal also includes a reception period controller configured to control a reception period for receiving a control signal transmitted from a base station by the transmitter/receiver, based on a reception state measurement result and a movement state measurement result. Independent Claims 12, 14 and 15 are directed to a corresponding control device, system and method, respectively.

To facilitate the understanding of the Applicants’ invention, a non-limiting example of the present invention as disclosed in the Specification is next explained. In Applicants’ invention, if the reception period (being the control channel search period) would only be controlled by the practically measured reception state, the following situation can occur. For example, if the reception state is measured in the location close to the base station, the reception state measurements will be good. In response to the good measurements, the reception period (control channel search period) will be lengthened. However, if the mobile

terminal is close to the base station, but moves at high speed, it is possible that the mobile terminal moves into a different cell covered by a different base station, before the mobile terminal would be able to search the control channel for the next reception period.

Accordingly, a problem would occur, if the determination of the period length would solely rely upon the reception state measurement.

In addition, if the control channel search period would only be determined based upon the practically measured movement state, another problem may arise, as next described. For example, if the mobile terminal does not move at all, the control channel search period would be lengthened. However, in the case were the mobile terminal is located at the border of a plurality of cells, the frequency of changing the choice of the optimum base station, being the connecting base station, will increase, since the radio reception would tend to change frequently. Therefore, there would be a problem if the mobile terminal cannot immediately find the optimal base station as the connecting base station, if the control channel search period is only based on the movement of the mobile terminal.

According to the present invention, the above described problems can be solved by using the combination of both the measurement of the reception state of the base station signal, and the measurement of the movement state of the mobile terminal, to thereby control the reception period (the control channel search period). Further, the combination of the feature of the practically measured “reception state” and the practically measured “movement state” also have a positive effect on the accuracy of the control of the reception period (the control channel search period).

Turning now to the applied reference, Pombo describes a method and apparatus for reducing power consumption in a portable communications device by *predicting* a user’s location, movement and actions. Among other features, Pombo describes the predicting of a user’s location and/or movement based in user’s *past communication activity*, also describes

the prediction of the time when the user needs to communicate based on the past communication activity.

However, Pombo fails to teach or suggest using *both* of the reception state and the movement state for controlling the reception period of a control signal (i.e., a period corresponding to the control channel search period) as recited in independent Claims 9, 12, 14 and 15. Applicants' invention measures current values and does not predict a user's location and movement.

Pombo cannot solve the above-described two problems, by using the combination of "predicting results of the user's location," and "predicting results of the user's movement," as described in Pombo. In addition, the user can move in direction other than the predicted direction, so that the accuracy of controlling the reception period (the control channel search period) cannot be improved by using the predicting result.

Pombo further describes that historical records of control channel and call activity are maintained in a memory 117 at the communications device 104 in order to predict calls. This permits the communications device 104 to conserve power in the battery 120 when no call activity is likely. The stored data is also used to predict what control channel should be scanned to search for a nearby base station 102. This permits the communications device 104 to scan a reduced number of control channels and reduce the time necessary for powering up the receiver 108 of the communications device 104.¹ In particular, Pombo discloses the technical feature that "predicting a user's location, movement and time the user need to communicate based on the user's past communication activity which have been recorded in advance" and "controlling a control channel search period based on the number of control channel consecutively received, which is transmitted through the same channel."

¹ Pombo, Abstract.

Therefore, Pombo's feature "predicting the user's location based on user's past communication activity," is not "measuring the current reception state," as recited in Applicants' independent Claim 9. Pombo's predicting the user's location based on the user's past communication activity, does not read upon measuring the current reception state, as recited in Applicants' claims. In addition "predicting the user's movement based on the user's past communication activity does also not read upon measuring the current movement state, as recited in Applicants' claims.

In response to the final rejection, Applicants note that Pombo further describes, to enhance user convenience that the invention of Pombo operates to reduce consumption of energy stored in a battery 120 by powering down or removing power from elements of the mobile station when those elements are not in use. There are three main processes which may be combined to reduce power consumption. One of the processes predicts user location. A second process predicts user movements. A third process *predicts when the user needs to communicate.*²

Regarding the process which predicts when the user needs to communicate, Pombo recites that predicting when the user needs to communicate allows a mobile station to enter a very low power mode or continuous sleep mode.³ A sleep time is set equal to the difference between a next call time and a current time. The next call time is determined by predicting from a data stored in a call activity table when a next call is likely to be made by the user.⁴

However, contrary to the Official Action, the prediction of when a user needs to communicate in Pombo does *not* correspond to Applicants' claimed measuring a reception state of a signal from a base station received by a transmitter/receiver. The need to communicate is based on a prediction, not a signal from the base station. Thus, the controller of Pombo, contrary to the Official Action, is *not* configured to control a reception period for

² Pombo column 5, lines 1-23.

³ Pombo column 6, lines 8-10.

⁴ Pombo column 11, lines 14-19.

receiving a control signal transmitted from the base station by the transmitter/receiver *based on a reception state measurement result determined by the reception state measurement unit.*

MPEP § 2131 notes that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) (claim to a system for setting a computer clock to an offset time to address the Year 2000 (Y2K) problem, applicable to records with year date data in “at least one of two-digit, three-digit, or four-digit” representations, was held anticipated by a system that offsets year dates in only two-digit formats). See also MPEP § 2131.02. “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because Pombo does not disclose or suggest all the features recited in Claims 9, 12, 14 and 15, Pombo does not anticipate the invention recited in Claims 9, 12, 14 and 15, and all claims depending therefrom.

Applicants have considered Schroeder and submit Schroeder does not cure the deficiencies of Pombo. Schroeder describes a portable radio telephone handset including the capability of operating as a data transfer terminal as well as an analog cellular telephone subscriber station.⁵ In particular, Schroeder discloses “in communication (the state while in communication) and stand-by (the state of stand-by), as the communication state of the mobile terminal”. As none of the cited prior art, individually or in combination, disclose or

⁵ Schroeder, Abstract.

suggest all the elements of independent Claims 9, 12, 14 and 15, Applicants submit the inventions defined by Claims 9, 12, 14 and 15, and all claims depending therefrom, are not rendered obvious by the asserted references for at least the reasons stated above.⁶

Should the Examiner continue to disagree with the above distinctions, Applicants respectfully request that the Examiner provide an explanation via Advisory Action pursuant to M.P.E.P. §714.13 specifically rebutting the points raised herein for purposes of facilitating the appeal process.

Accordingly, in view of the present Request for Reconsideration and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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⁶ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."